

TABLE 1. Estimated vaccination coverage* for MMR, DTaP, and varicella vaccines among children enrolled in kindergarten, by vaccine and immunization program — United States and territories, 2020-2021 school year								
Immunization Program	Kindergarten population [†]	No. (%) surveyed	Type of survey conducted [§]	Local Data Available Online [¶]	Measles, Mumps, Rubella (MMR) ^{**}	Diphtheria, Tetanus, and Pertussis (DTaP) ^{**}	Varicella ^{§§}	
					2 doses (%)	5/4 doses (%)	1 dose (%)	2 doses (%)
National Estimate ^{¶¶}	3,510,744	3,187,569 (90.8)	--	--	93.9	93.6	94.8	93.5
Median ^{¶¶¶}	--	--	--	--	93.7	93.4	95.1	93.3
Alabama ^{***}	56,974	56,974 (100.0)	Census	No	≥94.7	≥94.7	≥94.7	NReq
Alaska ^{†††}	9,461	0 (0.0)	Not Conducted	No	NR	NR	NReq	NR
Arizona	76,382	71,312 (93.4)	Census (public). voluntary response (private)	Yes	91.9	92.0	95.5	NReq
Arkansas ^{§§§}	37,540	35,878 (95.6)	Census (public). voluntary response (private)	No	93.2	92.3	NReq	92.8
California ^{§§§}	498,214	485,538 (97.5)	Census	Yes	95.1	94.7	NReq	94.8
Colorado	63,619	61,888 (97.3)	Census	Yes	90.5	90.1	NReq	89.4
Connecticut ^{***}	34,396	34,396 (100.0)	Census	Yes	95.3	95.3	NReq	95.1
Delaware	10,587	972 (9.2)	Stratified 2-stage cluster sample	No	95.7	94.9	NReq	95.3
District of Columbia ^{***}	8,262	8,262 (100.0)	Census	Yes	78.9	78.5	NReq	78.0
Florida ^{***}	207,026	207,026 (100.0)	Census	Yes	≥93.3	≥93.3	NReq	≥93.3
Georgia ^{***}	83,191	83,191 (100.0)	Census	No	≥88.5	≥88.5	NReq	≥88.5
Hawaii	13,074	1,216 (9.3)	Stratified 2-stage cluster sample	Yes	90.7	91.3	NReq	87.2
Idaho	22,677	22,285 (98.3)	Census	Yes	86.5	86.4	NReq	86.2
Illinois ^{***}	NR	NA	Not Conducted	No	NR	NR	NReq	NR
Indiana ^{¶¶¶}	78,694	56,171 (71.4)	Voluntary response	Yes	93.1	83.9	NReq	92.8
Iowa ^{***}	39,141	39,141 (100.0)	Census	Yes	≥93.4	≥93.4	NReq	≥93.4
Kansas ^{¶¶¶,***,§§§}	34,687	11,343 (32.7)	Stratified 2-stage cluster sample	Yes	92.6	90.8	NReq	91.8
Kentucky ^{¶¶¶,§§§}	59,233	51,180 (86.4)	Census (public). voluntary response (private)	Yes	88.9	89.4	NReq	88.3
Louisiana ^{***}	61,912	61,912 (100.0)	Census	Yes	96.2	96.9	NReq	93.2
Maine	13,477	11,449 (85.0)	Voluntary response (public). census (private)	Yes	94.3	94.0	97.0	NReq
Maryland ^{§§§}	65,764	49,694 (75.6)	Voluntary response	No	87.6	89.7	NReq	87.3
Massachusetts ^{***,§§§}	60,724	60,724 (100.0)	Census	Yes	95.9	95.7	NReq	95.4
Michigan ^{***}	106,657	106,657 (100.0)	Census	Yes	94.6	95.4	NReq	94.2
Minnesota	66,007	62,832 (95.2)	Census	Yes	89.8	89.3	NReq	89.0
Mississippi ^{***}	34,028	34,028 (100.0)	Census	No	≥98.9	≥98.9	NReq	≥98.9
Missouri ^{***}	63,093	63,093 (100.0)	Census	No	92.6	92.6	NReq	92.1
Montana ^{***}	11,279	11,279 (100.0)	Census	Yes	92.9	91.9	NReq	91.9
Nebraska ^{§§§}	25,681	24,341 (94.8)	Census (public). voluntary response (private)	No	95.5	96.1	NReq	95.1
Nevada	34,171	32,353 (94.7)	Census (public). voluntary response (private)	No	96.1	95.4	NReq	95.8
New Hampshire ^{¶¶¶}	10,242	5,843 (57.0)	Voluntary response	No	≥90.8	≥90.8	NReq	≥90.8
New Jersey ^{***}	100,144	100,144 (100.0)	Census	Yes	≥94.3	≥94.3	≥94.3	NReq
New Mexico ^{***}	20,589	20,589 (100.0)	Census	No	95.7	95.7	NReq	95.3
New York (including New York City)	216,804	198,428 (91.5)	Census (public). voluntary response (private)	Yes	98.3	97.8	NReq	98.1
New York City	91,920	86,565 (94.2)	Census (public). voluntary response (private)	No	97.4	96.6	NReq	97.1
North Carolina ^{¶¶¶,§§§}	120,995	107,700 (89.0)	Census (public). voluntary response (private)	No	95.2	95.2	NReq	95.1
North Dakota	10,116	10,027 (99.1)	Census	Yes	93.3	93.1	NReq	93.2
Ohio	128,535	117,097 (91.1)	Census (public). voluntary response (private)	No	89.6	89.0	NReq	88.7
Oklahoma ^{¶¶¶,§§§}	52,656	47,375 (90.0)	Census (public). voluntary response (private)	Yes	90.5	90.3	96.1	NReq
Oregon ^{***,§§§}	39,568	39,568 (100.0)	Census	Yes	92.7	91.6	95.1	NReq
Pennsylvania	129,307	122,800 (95.0)	Census (public). voluntary response (private)	Yes	95.5	95.9	NReq	95.3
Rhode Island ^{¶¶¶,§§§}	10,402	9,679 (93.0)	Census	Yes	97.0	96.8	NReq	96.7
South Carolina ^{***}	56,330	14,912 (26.5)	Stratified 1-stage cluster sample	No	94.4	95.0	NReq	94.2
South Dakota	11,512	11,502 (99.9)	Census	Yes	94.6	93.7	NReq	94.0
Tennessee ^{***,¶¶¶}	73,819	73,819 (100.0)	Census	Yes	96.6	96.4	NReq	96.4
Texas (including Houston) ^{¶¶¶,§§§}	377,840	373,865 (98.9)	Census	Yes	95.3	95.0	NReq	95.0
Houston ^{¶¶¶,§§§}	39,627	37,603 (94.9)	Census (public). voluntary response (private)	No	83.7	83.9	NReq	83.1
Utah ^{***}	46,247	46,247 (100.0)	Census	Yes	91.4	91.1	NReq	91.2
Vermont ^{***}	5,535	5,535 (100.0)	Census	Yes	94.0	93.6	NReq	93.3
Virginia ^{***}	88,273	1,778 (2.0)	Stratified 2-stage cluster sample	Yes	95.8	97.7	NReq	94.1
Washington ^{¶¶¶}	74,931	74,931 (100.0)	Census	Yes	94.4	93.2	NReq	93.2
West Virginia	NR	NA	Not Conducted	Yes	NR	NR	NR	NR
Wisconsin ^{¶¶¶,***,§§§}	63,486	53,672 (84.5)	Voluntary response	Yes	≥87.2	≥87.2	NReq	≥87.2
Wyoming ^{***}	6,923	6,923 (100.0)	Census	No	≥90.2	≥90.2	NReq	≥90.2
American Samoa ^{***,††††}	1,045	1,045 (100.0)	Census	No	87.7	65.2	NReq	56.3
Federated States of Micronesia	1,604	1,550 (96.6)	Census	No	98.4	86.1	NReq	NR

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					2 doses (%)	5/4 doses (%)	1 dose (%)	2 doses (%)
Guam	NR	NR	Not conducted	No	NR	NR	NReq	NR
Marshall Islands ^{***}	1,016	1,016 (100.0)	Census	No	99.7	94.4	NReq	NR
N. Mariana Islands ^{***}	830	830 (100.0)	Census	No	94.5	84.2	NReq	95.3
Palau	NR	NR	Not conducted	No	NR	NR	NReq	NR
Puerto Rico	26,353	NR	Not conducted	No	NR	NR	NReq	NR
U.S. Virgin Islands	NR	NR	Not conducted	No	NR	NR	NReq	NR

Abbreviations: MMR = measles, mumps, and rubella vaccine; DTaP = diphtheria and tetanus toxoids and acellular pertussis vaccine; NA = not available; NR= no reported; NReq = not required for school entry.

*Estimates are adjusted for nonresponse and weighted for sampling where appropriate. Estimates based on a completed vaccine series (i.e., not vaccine-specific) use the “≥” symbol. Coverage might include history of disease or laboratory evidence of immunity.

[†]The kindergarten population is an approximation provided by each program.

[§]Sample designs varied by state/area: census = program attempted to include all schools (public and private), and all children within schools in the assessment, and had a student response rate of ≥90%; 1-stage or 2-stage cluster sample = schools were randomly selected, and all children in the selected schools were assessed (1-stage) or a random sample of children within the schools was selected (2-stage); voluntary response = a census with a student response rate of <90% (does not imply that participation was optional).

[¶]Some programs publish kindergarten vaccination data online that are more detailed than the state-level estimates in this table. Examples of more detailed data include county, parish, school district, and school-level estimates.

^{**}Most states require 2 doses of MMR; Alaska, New Jersey, and Oregon require 2 doses of measles, 1 dose of mumps, and 1 dose of rubella vaccines. Georgia, New York, New York City, North Carolina, and Virginia require 2 doses of measles and mumps, 1 dose of rubella vaccines. Iowa requires 2 doses of measles and 2 doses of rubella vaccines.

^{††}Pertussis vaccination coverage might include some diphtheria, tetanus toxoids, and pertussis vaccine (DTP) vaccinations if administered in another country. Most states require 5 doses of DTaP for school entry, or 4 doses if the fourth dose was received on or after the fourth birthday; Maryland require 4 doses; Nebraska requires 3 doses. The reported coverage estimates represent the percentage of kindergartners with the state-required number of DTaP doses, except for Kentucky, which required 5 doses of DTaP by age 5 years but reported 4-dose coverage for kindergartners.

^{§§}Reporting of varicella vaccination status for kindergartners with a history of varicella disease varied within and among states; some were reported as vaccinated against varicella and others as medically exempt.

^{¶¶}Medians calculated from data from 47 states and the District of Columbia (i.e., does not include Alaska, Illinois, West Virginia, Houston, New York City, American Samoa, Guam, Marshall Islands, Federated States of Micronesia, N. Mariana Islands, Palau, Puerto Rico, or U.S. Virgin Islands). Data reported represent 3,510,744 kindergartners.

^{***}The proportion surveyed likely was <100%, but is reported as 100% based on incomplete information about the actual current enrollment.

⁺⁺⁺Alaska did not report kindergarten vaccination coverage because of problems with data collection. Vaccination coverage among children aged 63-75 months in VacTrAK, Alaska’s Immunization Information System, was 70.2% for MMR, 83.0% for DTaP, and 67.1% for varicella vaccine.

^{§§§}Counted some or all vaccine doses received regardless of Advisory Committee on Immunization Practices recommended age and time interval; vaccination coverage rates reported might be higher than those for valid doses.

^{¶¶¶}Did not include some types of schools, such as online schools or those located in military bases or correctional facilities.

^{****}Kindergarten vaccination coverage data were collected from a sample, and exemption data were collected from a census of kindergartners.

⁺⁺⁺⁺Reported public school data only.